Application No.: 09/758,798   Docket No.: 102323-0062

REMARKS

This reply is in response to the Office action dated December 20, 2004. The amendments above and the remarks that follow address the points raised in the Office Action and thereby place this application in condition for allowance.

Claim Objections due to Informalities

Claims 5, 12, 13, and 17 stand objected to due to informalities cited by the Examiner. These informalities have been corrected in the amended claims.

Claim Rejections under 35 U.S.C. § 102

Claims 1, 4-8, 10-13, and 16 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Garcia, U.S. Patent No. 6,545,981.

Independent claim 1 is directed to a digital data system comprising a link that carries message packets. A first node sends a plurality of message packets to a second node on the link as a sequence of message packets. Each message packet is sent from the first node with a sequence identifier. Each message packet also has an initial portion comprising an error code. The second node inspects the error code for each packet received on the link to detect an error condition, and returns a control symbol along with the sequence identifier of the received packet to the first node based on the result of that inspection. The second node returns the control symbol to the first node before the entire message packet has arrived at the second node. The first node responds to the control symbol to control the further transmission of message packets to the second node over the link.

Garcia purports to teach a system for error detection and recovery in a network that facilitates in-order and out-of-order packet reception. If a transmission error occurs, the receiver informs the transmitter that the given path failed, so both nodes update path status information to indicate that the given path is a bad path. Acknowledgements are sent from the receiver to the transmitter regarding the status of the message transmission.

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Garcia does not teach all the features recited in claim 1. Thus, it does not teach the second node returning the control symbol to the first node before the entire message packet has arrived at the second node. Unlike the claimed invention, where the error code of the initial portion of the message packet can be inspected and a control symbol based on that inspection be returned to the sending node without the receiving node having the entire packet, the receiving node in Garcia gets the entire message packet and then determines if an error has occurred. There is no teaching in Garcia to suggest that only a portion of the message packet is needed to determine if an error has occurred.

Dependent claims 4-6 depend on independent claim 1, and contain all the features of claim 1. Hence, claims 4-6 are patentable over the cited reference.

The arguments presented above apply with equal force to independent claims 7, 13, and 16. Dependent claims 8, 10, 11 depend on claim 7, and contain all the features of claim 7 and hence, are patentable over the cited reference.

Claim Rejections under 35 U.S.C. § 103

Claim 9 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Garcia in view of Passint et al., U.S. Patent No. 5,581,705.

Claim 9 is dependent on independent claim 7, and contains all the features thereof. Passint does not remedy the deficiencies of Garcia. Passint purports to teach a messaging system for efficient message-passing between multiple processors. Nowhere does Passint teach or suggest the features of the claimed invention, specifically a system where the second node returns a control symbol before the message packet has arrived at the second node.

Claims 14, 15, and 17 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Garcia in view of Wiklund, U.S. Patent No. 6,452,926.

Independent claim 14 is directed to a digital data system comprising a first node and a second node connected by a first link. The first node sends a plurality of message packets to the second node over the first link. Each message packet includes a header portion and a

further portion, and the header portion includes an error code. The second node checks the error code and sends a valid message packet to a further node over a further link. At least a part of the header portion is a changeable part that may change as the message packet passes from the first link to the further link, and at least a part of the message packet is invariant. The error code does not need to be recalculated when the message packet passes to the further link. Corruption of the header portion of the packet is detected without reference to the further portion of the packet.

Independent claim 17 is directed to a digital data system comprising a first node and a second node connected by a first link. The first node sends a plurality of message packets to the second node over the first link with each message packet being sent from the first node with a sequence identifier. Each message packet also has an initial portion comprising an error code. The second sends the message packets to a further node over a further link. The second node inspects the error code for each packet received on the link to detect an error condition, and returns a control symbol to the first node for each packet received therefrom the first link along with the sequence identifier of the received message packet based on the result of that inspection. The second node returns the control symbol to the first node before the entire message packet has arrived at the second node. The first node responds to the control symbol to control the further transmission of message packets to the second node over the first link, such that transmission of data packets from the first node to the further node proceeds efficiently.

Wiklund does not remedy the deficiencies of Garcia. Wiklund purports to teach a robust ATM switch built with tree stages. Nowhere does Wiklund teach or suggest the features of the claimed invention, specifically a system where the second node returns the control symbol before the entire message packet has arrived.
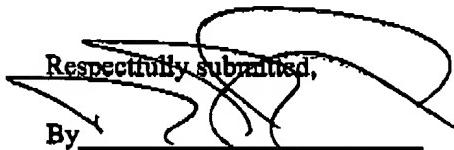
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Conclusion

In view of the above amendments and remarks, Applicant believes the pending application is in condition for allowance.

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Respectfully submitted,

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